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ASBESTOS - Fresno Co. - Santa Cruz Mine

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STATE OF CALIFORNIA - THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
DIVISION OF MINES AND GEOLOGY

MINERAL PROPERTY REPORT *

Santa Cruz Mine, Joaquin Ridge

Name of Property (Atlas Asbestos Co.)

Commodity ASBESTOS (chrysotile serpentine)

County Fresno

Township 18 south Range 13 east Section 31, 32

Latitude 36° 19.3' N. Longitude 120° 35.0' W.

Santa Rita Peak 7½' Quadrangle
(SE/4 Idria 15' Quad.)

Location, accessibility, & physiography:

Mine and mill are high up on southerly slope of Joaquin Ridge, elev. about 4260'. Slope descends steeply southward into upper White Creek, dropping 1600' elev. in 8400' horizontal distance (19%), and irregular, cut by gullies with intervening dissected ridges. Property reached from Los Gatos Creek road, turning off to east about 23 miles northwest of Coalinga on unpaved White Creek road. About 4½ miles from turnoff, road leaves creek and climbs spur ridges to plant, which is about 8 miles from Los Gatos road turnoff.

Ownership, Lease holders, Intermediaries:

Atlas Asbestos Co.
1145 Westminster Ave.
Alhambra, Ca. 91802
Ph. (213) 283-9121

Mine & mill office:
6th & Railroad
Coalinga, Ca. 93210
P.O. Box 805

Sales Manager:
W.R. Whitener
(209) 935-2901

Superintendent:
Mel Berlund
(209) 935-2592

Company holds considerable acreage under lease in Sections 31 & 32, in part government land, in part private.

History, Production & Marketing:

Active prospecting for asbestos began in this area in 1959. In 1962, Atlas Metals Div. of Atlas Corp. acquired a large number of claims in the southern part of the ore body, and completed a mill at the site in 1963, initial capacity reported as 15,000 tons/year. Atlas Corp. sold the operation in 1968, reporting a loss of \$1,056,485 (Std. & Poores, Corp. Records, Dec-Jan '73-'74). Now operated by Atlas Asbestos Co. which processes ore at the site, turning out asbestos fiber packaged in plastic & paper bags which are trucked to Port of Oakland, their Coalinga warehouse, or other markets (including suppliers

Geology & Mineralogy:

of drilling mud).

Deposit is part of a large mass of sheared serpentine about 4 X 14 miles in dimensions, which makes up the exposed core of the Coalinga anticline, on the eastern flanks of the Diablo Range. The serpentine core has steeply-dipping Mesozoic and Tertiary marine sediments around its flanks, and is intensely sheared with much of its southeast portion altered to a flaky material made up largely of matted, short-fiber chrysotile. Fibers are oriented along the shear planes ("slip-fiber" type). Only short-fiber grades of asbestos are produced in this district (most of world production is of short-fiber types), but the Coalinga material is whiter and more oil-absorbent than that from most other sources.

Much of the ground surface is loose whitish serpentine debris, probably slide material, with occasional harder rocky outcrops. Vegetation is absent on many of these serpentine slopes, or is made up only of sparse chaparral and a few larger trees in some places.

D.M.G. investigator F. R. Kelley
Date of field visit 5-16-74
Date of office data review AS 2574
Date submitted to M.R.C. 5-17-74
Date approved by M.R.C. 9-12-74 CBE

Attach index, claim, geologic maps, sketches, photos, assay results, production data, smelter shipments,

other reports or important data of any kind.

Mining & Waste Disposal:

The deposit is mined on an open hillside, using a series of benches. Only small amounts of overburden and vegetation need to be removed, and the sheared serpentine is "plowed" to loosen it and allowed to air-dry, after which it is picked up in carryall graders and stockpiled in the area north of the mill. Enough is mined and stockpiled in a few weeks to supply the mill for a year. Two pits have been developed, the older "Rover pit" and the newer "Santa Cruz pit" higher on the hill slope.

The mill feed from the stockpile goes through a 6" grizzly and a screening operation, then is dried in a rotary kiln to about 2% moisture. In recent months, the price of fuel oil for the kiln has increased until it is now the largest cost item of the operation. In the main milling process, the dried feed goes through a number of screening and air flotation stages, and the product, several grades of fluffy, fibrous asbestos powder, is packed in plastic or paper bags ready for the market.

The dry waste is disposed of in waste piles in the vicinity of the plant.

Environmental Consideration - such as zoning restrictions & problems, land use permits, land reclamation plans, air & sound factors, water use & water quality problems.

The company has been ordered by water pollution control authorities to take steps to prevent drainage from waste pile areas from entering White Creek.

Since most of the mountainside of Joaquin Ridge drains into White Creek, and over many square miles is covered with finely-divided serpentine debris, it would appear inevitable that the natural drainage would already contain large amounts of chrysotile asbestos fiber.

Conclusions and/or recommendations:

This operation is a valuable source of raw materials contributing to the state's economy, extracting a previously undeveloped resource from an area that in the past has had little economic potential.

References:

Rice, S.J., 1963, California Asbestos Industry; Mineral Info. Service, v. 16, no. 9, pp. 1-7.

Rice, S.J., 1966, Asbestos, in Mineral Resources of Calif., Div. Mines Bull. 191, pp. 86-92.

May, T.C. & Lewis, R.W., 1970, Asbestos, U.S.B.M. Bull. 650, pp.851-863.

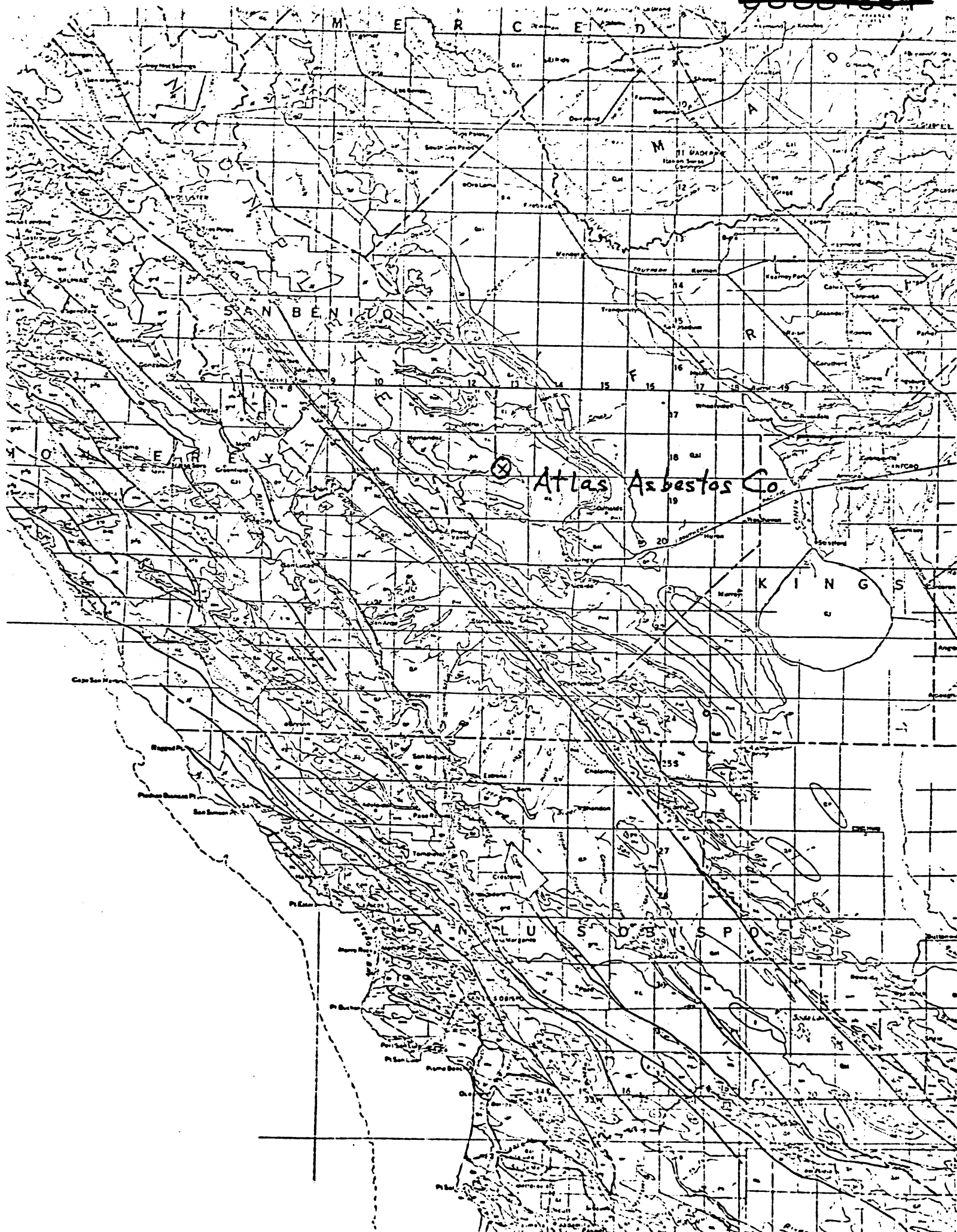
Attachments:

Index map showing location of mine and plant.

Topographic map of mine vicinity.

Photographs of operation.

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Union Carbide Corp.

Joe 5-7 Mine

Santa Rita Peak

Aqueduct Spring

Spring

Santa Cruz

pit

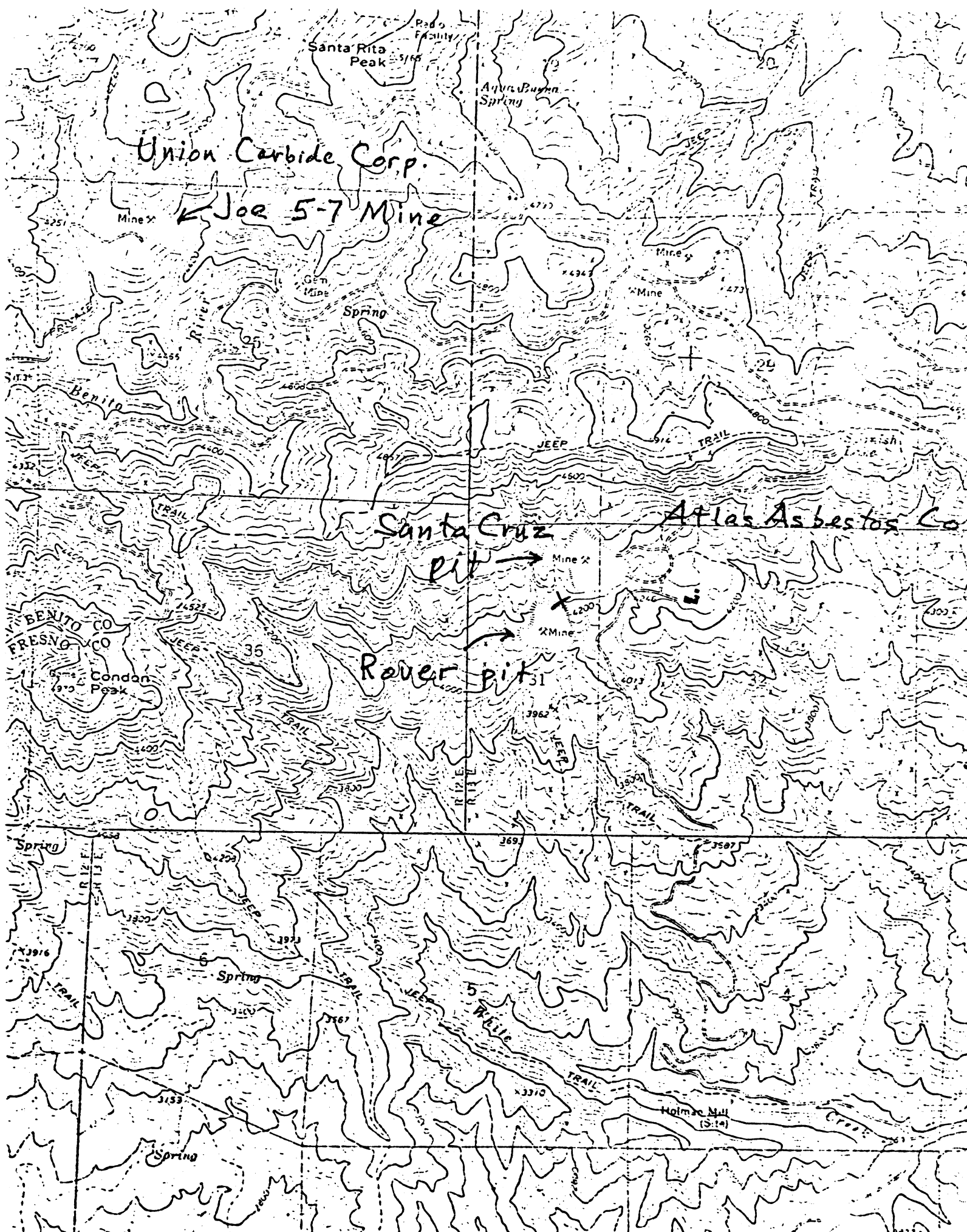
Atlas Asbestos Co.

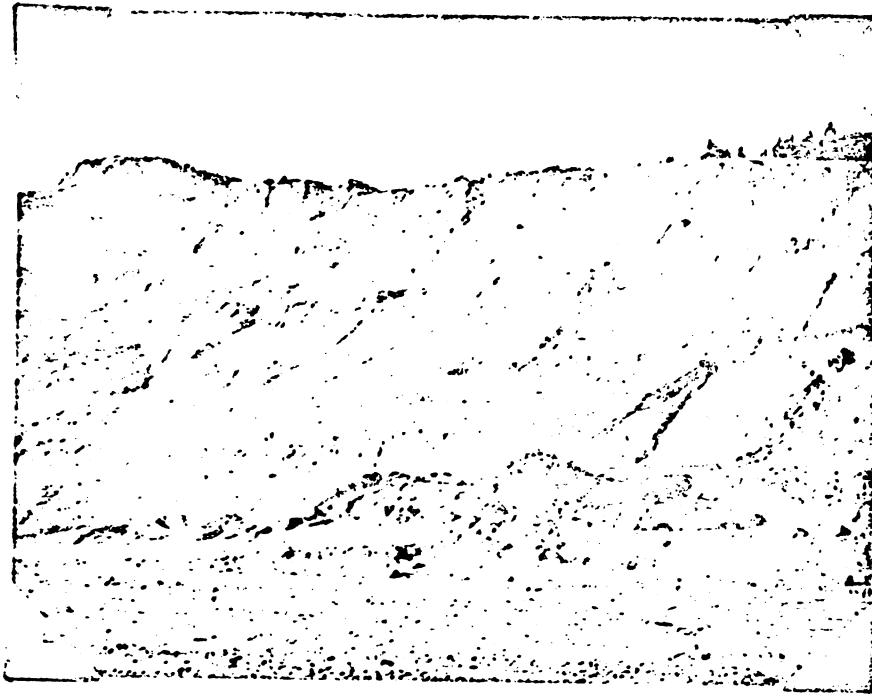
Rover pit

BENITO CO
FRESNO CO

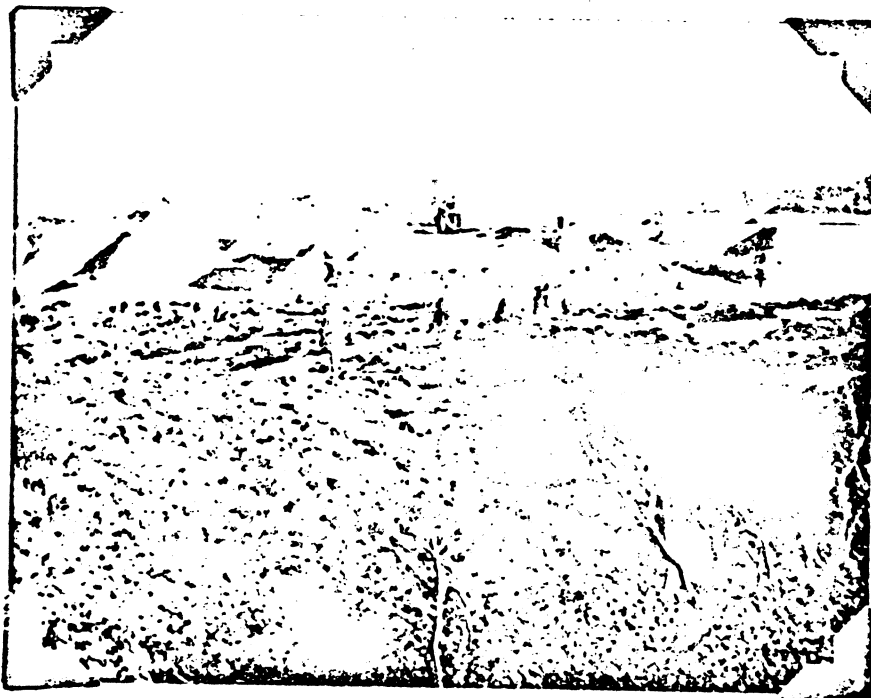
Condor Peak

Holmes Mill
(S-14)





Face of Santa Cruz pit, Atlas Asbestos Co. mine; showing benches and pile of oversize waste in foreground near automobile (5-16-74).



Atlas Asbestos Co. mill, showing stockpiles on right, waste piles on left; view looking southwest (5-16-74).

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CUSTOM MILL and/or PROCESSING PLANT REPORT *

Name of mill or plant Santa Cruz Mill, Atlas Asbestos Co. D.M.G. investigator F. R. Kelley
Commodities milled and/or processed Asbestos — Date of field visit May 16, 1974
(chrysotile serpentine) Date of office data review SEP 27 74
County Fresno Date submitted to M.R.C. SEP 5 74
Township 18 south Range 13 east Section 32 NW 1/4 Date approved by M.R.C. 9/12/74 C.R.E.
Latitude 36° 29' 3" N Longitude 120° 35' 0" W

Location: Western Fresno Co., high up on southerly slope of Joaquin Ridge. Reached by turn-off from Los Gatos Creek Rd. about 23 miles northwest of Coalinga, and 8 miles of gravel road, by way of upper White Creek and steep ridge to millsite

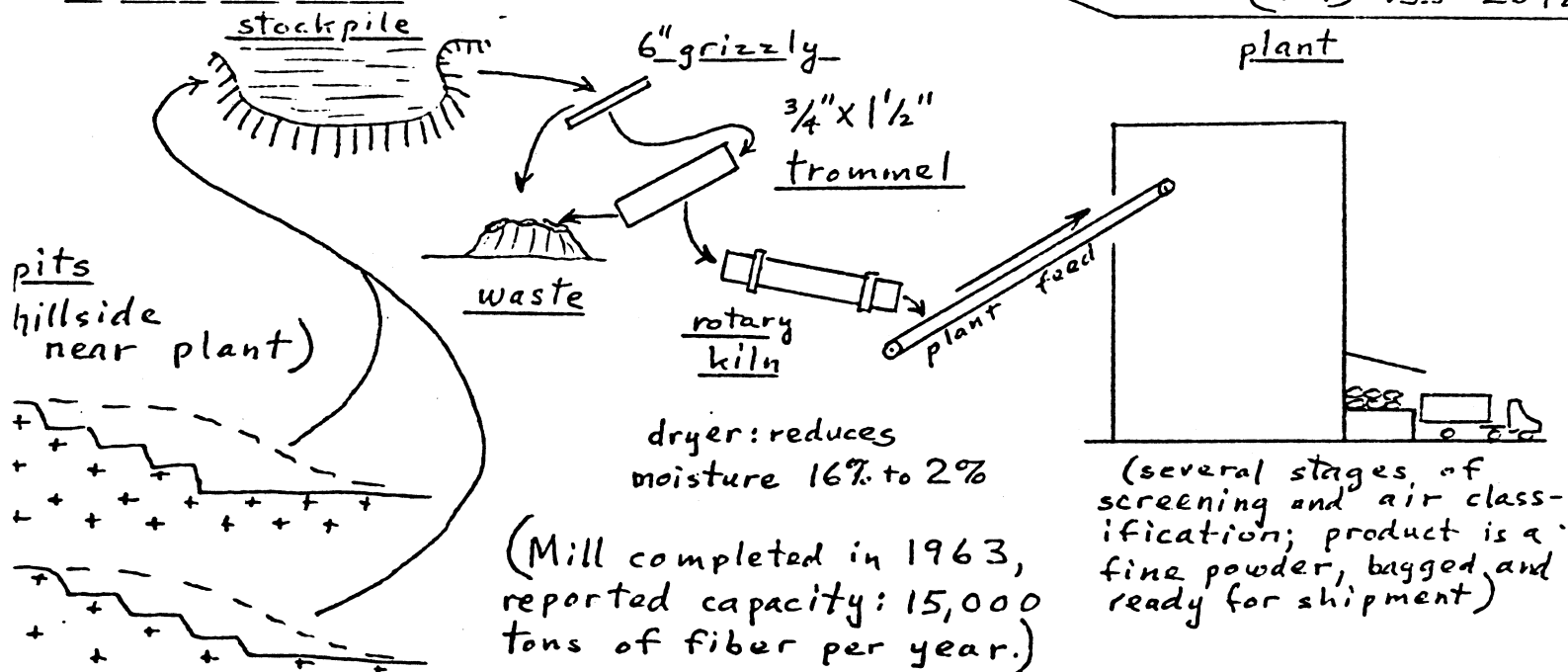
Ownership:

Atlas Asbestos Co.
1145 Westminister Ave.
Alhambra, Calif. 91802
Ph. — (213) 283-9121

Mine & mill office:
6th & Railroad
Coalinga, Ca. 93210
P.O. Box 805

Sales Manager:
W R Whitener
(209) 935-2901
Superintendent:
Mel Berlund
(209) 935-2592

Mill and/or plant flowsheet (describe source and location of raw material):



Trade names and availability of milled and/or processed products:

Atlas markets powdered asbestos fiber in four main grades: "AZ-20", "AZ-25", "AZ-100" and "AZ-150". The plant also supplies asbestos for three drilling-mud companies, Dresser, Halliburton and _____, packaging it here in the mud companies' own bags.

Much of this plant's output is trucked to Oakland and sent by ship to the East Coast. Part goes by truck to the Southwest (New Mexico, Arizona, etc). Output is sent about 70% by truck, 30% by rail.

W. R. WHITENER

SALES MANAGER

ATLAS ASBESTOS Co.

1145 WESTMINSTER AVE.
ALHAMBRA, CALIF. 91802
213 - 283-9121

MINE AND MILL OFFICE:

P. O. BOX 803
COALINGA, CALIF. 93210
209 - 935-2901

MEL BERLUND

SUPERINTENDENT

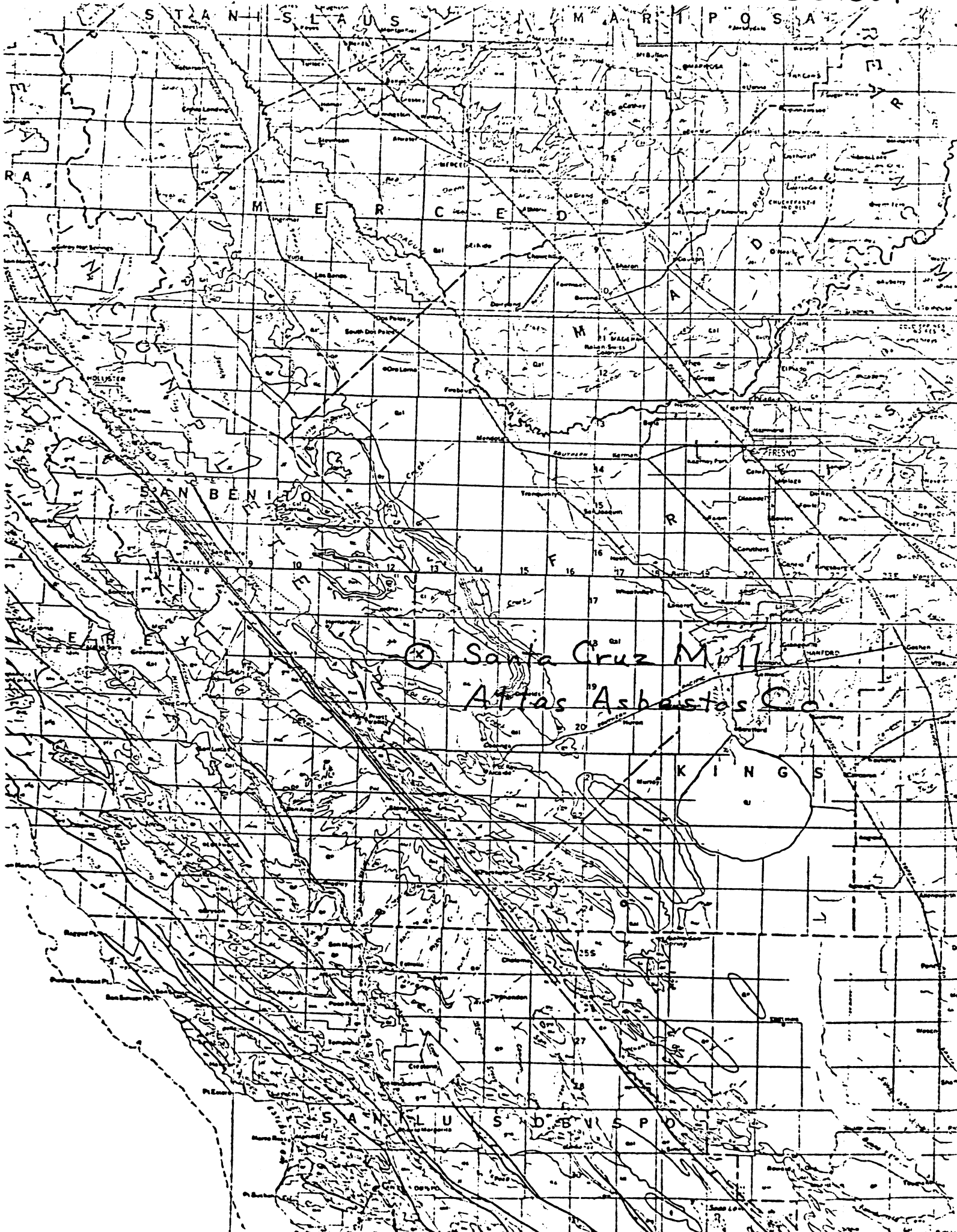
ATLAS ASBESTOS Co.

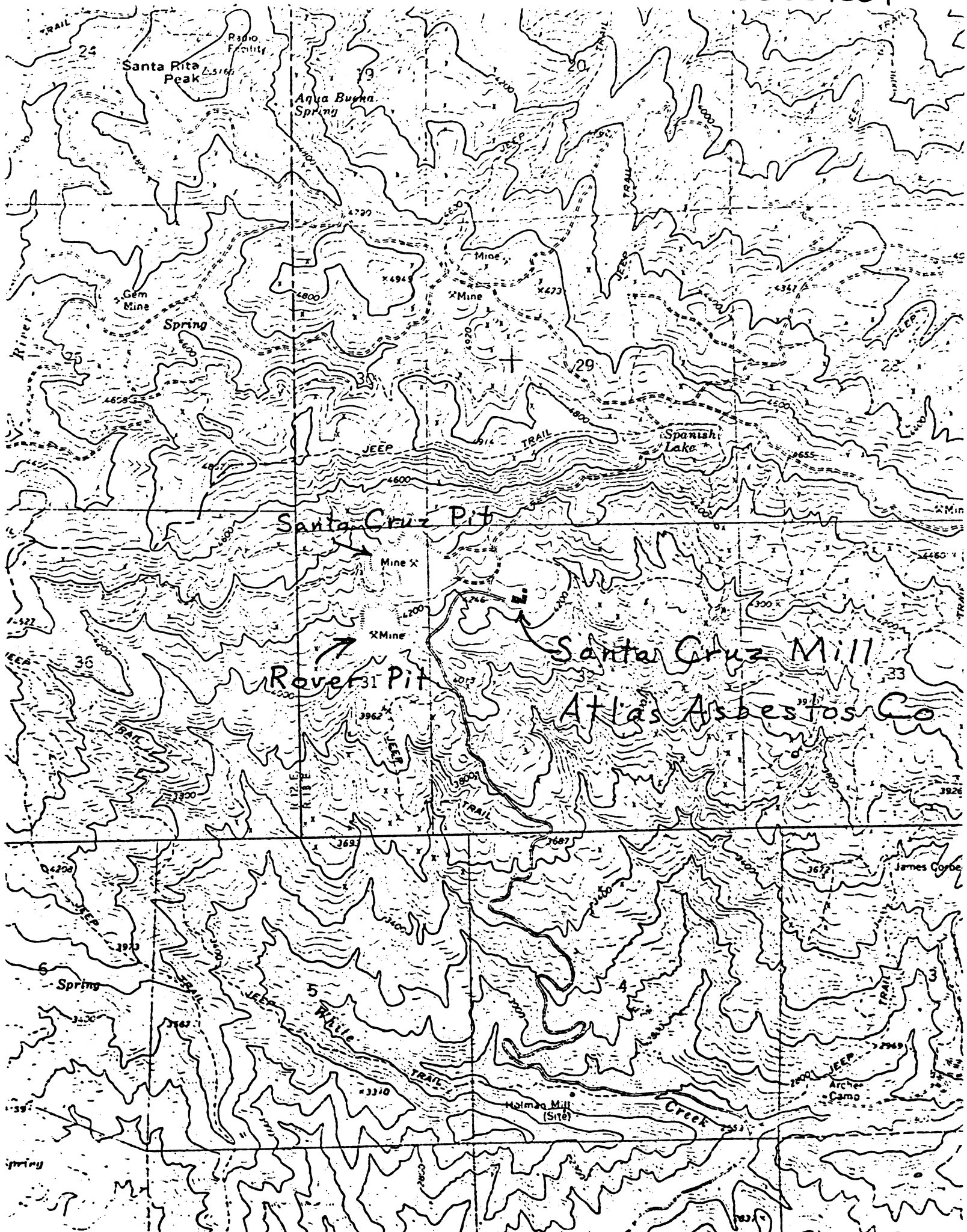
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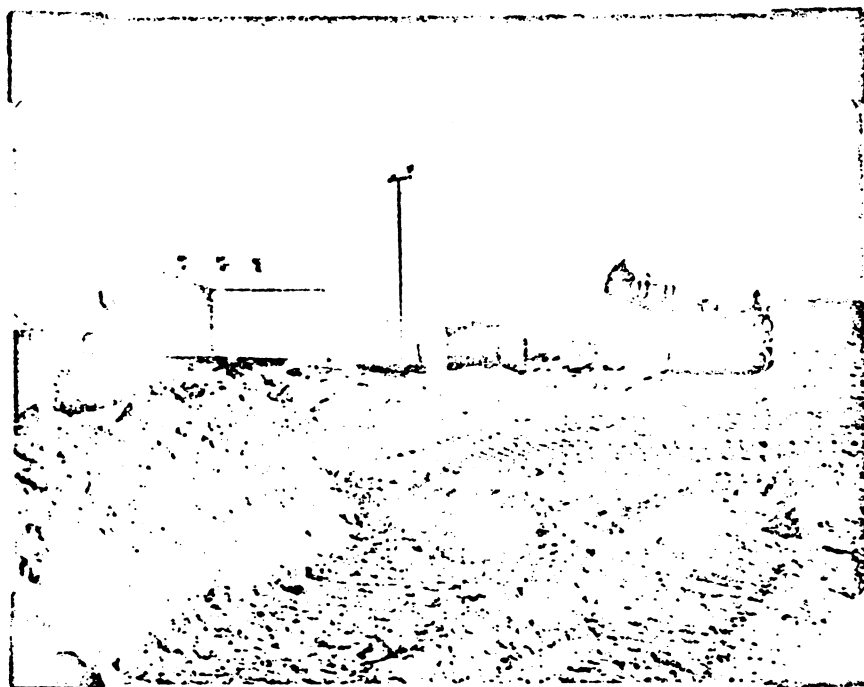
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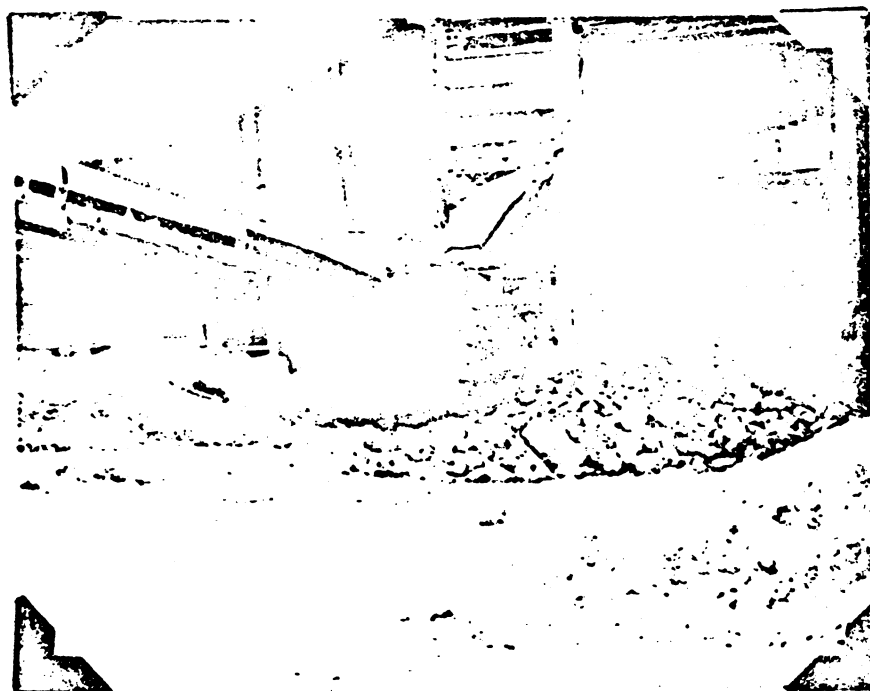
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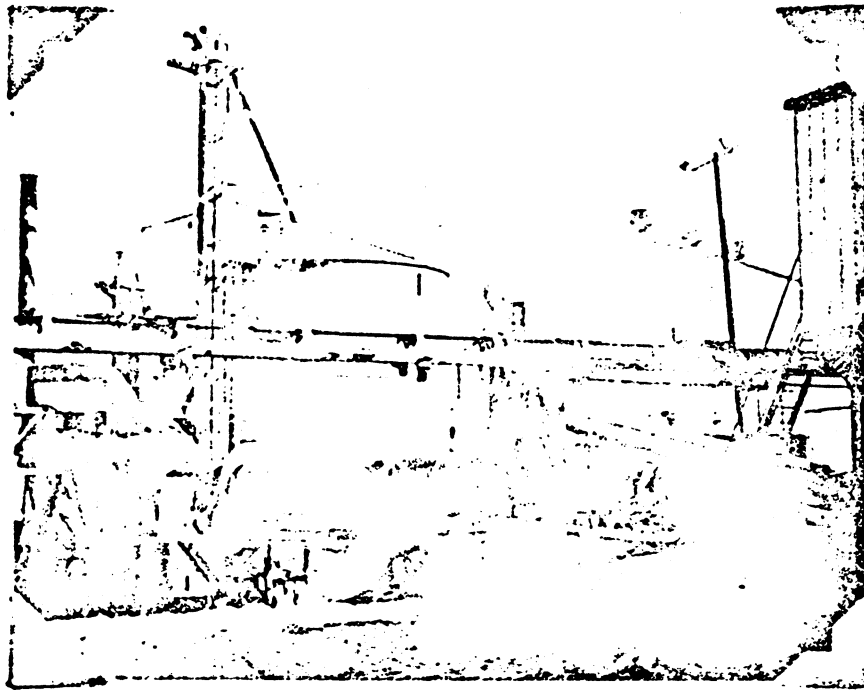




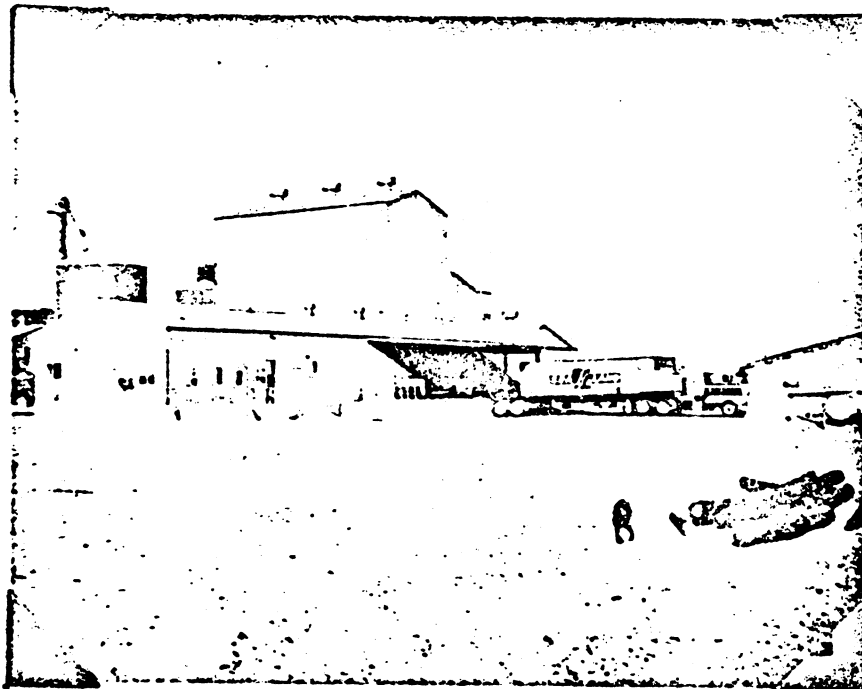
Atlas Asbestos Co., showing stockpile, with loader preparing to dump scoop of raw ore into grizzly; main mill building at left (5-16-74).



Six-inch grizzly at Atlas Asbestos Co. mill; conveyor at left carries ore to rotary kiln (5-16-74).



Rotary kiln, for drying screened asbestos-ore mill-feed down to 2% moisture; elevated conveyor carries oversize screenings enroute to waste pile, right to left across center of photo (5-16-74).



Main mill building and loading dock, Atlas Asbestos Co. (5-16-74).